

What is Bovine Spongiform Encephalopathy?

Bovine Spongiform Encephalopathy (BSE) is a fatal neurological illness of cattle that emerged in the United Kingdom (U.K.) in 1986. It has affected nearly 200,000 cattle to date; the majority in the U.K., but at least 20 other countries have had cases of BSE. It has resulted in the diversion of more than 5.5 million cattle from the human food chain into rendering and incineration in the U.K. alone. BSE has overwhelmed the livestock industries of Europe and dramatically affected consumer confidence.

A new human disease, variant Creutzfeldt-Jakob disease (vCJD), was recognized in 1996, and has claimed 110 lives as of March 2002. Most scientific evidence supports that vCJD is caused by the same agent that causes BSE. BSE has never been diagnosed in the U.S.

What are the Signs of BSE?

BSE has an incubation period of 2 to 8 years. Signs begin with changes in temperament, such as nervousness or aggression. Cattle become progressively uncoordinated and lose condition despite continued appetite. There is no treatment - affected cattle die 2 weeks to 6 months after the first signs.

What Causes BSE?

The agent causing BSE is not fully characterized, but most evidence suggests it is an abnormal protein known as a prion. This agent is smaller than most viruses and is very resistant to heat, ultraviolet light, radiation, and disinfectants. It causes no detectable immune or inflammatory response.

How is BSE Spread?

The BSE agent spreads among cattle principally through feed containing meat and bone meal made from rendered ruminant products.

For more information, contact:

CDFA

1220 N Street
Sacramento, CA 95814

Animal Health Branch

Room A-107
(916) 654-1447

Agricultural Commodities and Regulatory Services

Room A-472
(916) 654-0574

Preventing the Entry of BSE

Beginning in July 1989, and with modifications over time, USDA has banned importation of live ruminants and most ruminant products from countries with BSE. In December 2000, USDA banned the importation of all rendered animal products from Europe, regardless of species. If you have knowledge of illegal importation of animals or products, please notify CDFA's Animal Health Branch, Agricultural Commodities and Regulatory Services or USDA's Veterinary Services personnel.

Surveillance for BSE in the U.S.

Surveillance began in 1990 and consists of examining brain tissue from cattle showing neurological signs that may be consistent with BSE. More than 2,500 brain samples from California have been examined for BSE, and more than 25,000 have been examined nationwide as of March 2002. **Producers should report cattle with neurological signs to their veterinarian.**



The U.S. Feed Ban

Since August 1997, the Food and Drug Administration (FDA) has prohibited the use of protein derived from mammalian tissues (with certain exceptions including milk, blood, porcine and equine proteins) in ruminant feed. Ruminant means any animal that has a four-chambered stomach, including cattle, buffalo, sheep, goats, deer, elk and antelope. Feed manufacturers are required to label any feed that contains prohibited materials with the statement, **"Do not feed to cattle or other ruminants"**.

Compliance Within California

All feed-manufacturing facilities in California have been inspected at this time, all facilities are complying with the requirements of the feed ban.

What Should Producers Do?

To comply with these regulations, **producers must not feed products containing prohibited materials to any ruminants.** In addition, producers must keep copies of all feed records – invoices and labels – for one year, and have them available for inspection. Farm inspections help ensure that prohibited materials are not being fed to ruminants. Regulatory action can be taken under the Federal Food, Drug and Cosmetic Act.

Response Plan Within California

The USDA has developed an emergency response plan focusing on protecting human health and eradicating BSE. This plan will be activated if BSE is diagnosed in the U.S.

Cattle producers are key players in preventing BSE from occurring in the U.S. BSE has never been diagnosed in the U.S. Transmission of BSE can be prevented by ensuring that feed containing rendered mammalian tissues is not fed to ruminants.

Important Phone Numbers

California Department of Food and Agriculture

Animal Health Branch

Headquarters	(916) 654-1447
Redding District	(530) 225-2140
Modesto District	(209) 491-9350
Tulare District	(559) 685-3500
Ontario District	(909) 947-4462

Inspection Services Agricultural Commodities and Regulatory Services

Headquarters	(916) 654-0574
Fresno	(559) 452-9687
Ontario	(909) 930-9689
Imperial	(760) 355-2877

United States Department of Agriculture

Veterinary Services

Sacramento	(916) 857-6170
Toll Free	(877) 741-3690

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Developed by the State of California, Department of Food and Agriculture, Animal Health and Food Safety Services, Animal Health Branch, 1220 N Street, Room A-107, Sacramento, CA, 95814. (916) 654-1447. Or visit our Website at www.cdffa.ca.gov.



Animal Health and Food Safety Services

Preventing Bovine Spongiform Encephalopathy

“Mad Cow Disease”



Additional formats available upon request.